

**STATEMENT OF SUE M. TAYLOR
LEPRINO FOODS COMPANY
at the
UNITED STATES DEPARTMENT OF AGRICULTURE PUBLIC HEARING
ON THE CLASS I FLUID MILK PRODUCT DEFINITION**

**Pittsburgh, Pennsylvania
June 22, 2005**

Introduction

I am Sue Taylor, Vice President of Dairy Policy and Procurement for Leprino Foods Company (Leprino), headquartered in Denver, Colorado. Our business address is 1830 West 38th Avenue, Denver, Colorado 80211-2200. Leprino operates nine plants in the United States, manufacturing mozzarella cheese and whey products domestically and marketing our products both domestically and internationally. Six of these plants receive milk regulated under the Federal Milk Marketing Order System ("Orders"). The California State Order regulates the other three plants. The markets for the whey products generated by all of our plants, regardless of location, will be impacted by some of the proposals under consideration at this hearing. Therefore, Leprino has a strong interest in the decision by USDA ("Department") as a result of this hearing.

Expertise

In my role as Vice President of Dairy Policy and Procurement at Leprino Foods, I am responsible for developing the company's policy positions and advocating those positions in appropriate forums, such as today's hearing. Additionally, I am responsible for market analysis and forecasting, and raw milk procurement among other things. I have represented the company at all Federal Order and California Order hearings that have related to cheese milk pricing over the last ten years.

In addition to my current responsibilities at Leprino, I chair the Legislative and Economic Policy Committee for National Cheese Institute and chair the Producer Relations Committee for the Dairy Institute of California. Both committees formulate the respective organization's positions as they relate to milk pricing policy.

My professional responsibilities have focused on dairy markets and policies since 1989, when I joined Sorrento Cheese as a dairy economist / production analyst. From 1992 through 1994, I was a principal in a dairy economics and management consulting business, Dairy Management Concepts, which provided consulting services to a broad spectrum of dairy companies, most of whom operated plants. I have been at Leprino leading the dairy policy and procurement efforts since January 1995. My educational background includes both Bachelor and Masters degrees from Cornell University in agricultural education with a heavy emphasis on agricultural economics.

Position

In the face of rapidly advancing technologies and the chilling effect that Class I regulation has on the use of dairy ingredients in many existing and new product formulations such as non-traditional dairy beverages, Leprino believes that it is time to refocus the Class I fluid milk product definition on beverage milk and those products that directly compete with beverage milk. To best achieve that change, Leprino supports the adoption of many of the concepts embodied in Proposal # 5 (Hood). Specifically, we support defining Class I products as those products that fit the standards of identity for milk and cultured buttermilk and those products that substantially compete with those products. Alternatively, if the current Class I definition structure is maintained, Leprino supports the exclusion for nutritional drinks (Proposal # 10) and supports the exclusion of products containing 20% or more yogurt (Proposal # 9).

If the Department does not grant the exclusions for nutritional drinks and beverages containing 20% or more yogurt, Leprino strongly opposes the adoption of the protein standard to replace the SNF standard.

Class I Definition Discussion

The issue of defining Class I fluid milk products is very complex. The current definition casts the net broadly ("fluid milk products in fluid or frozen form... that are intended to be used as beverages") and then provides specific exclusions. These exclusions include eliminating products for composition (fat above 9% or SNF below 6.5%) and concentration levels. Additionally, specific products (evaporated milk, sweetened condensed milk, and "formulas especially prepared for infant or dietary use (meal replacements) that are packaged in hermetically-sealed containers) are specifically excluded. Several exception terms, such as "formulas prepared for dietary use" and "hermetically sealed containers" lack clarity.

Unintended consequences are being generated by the existing Class I definition in the current environment of fractionation and packaging technology advances. Some parties to this hearing contend that one unintended consequence is the potential classification of low carb drinks that resemble milk and are marketed directly against milk as Class II products. While I do not dispute that conclusion, I believe there is a more troubling second unintended consequence that has the potential of reducing producer revenues to a much greater extent than the omission of low carb milk-like products from Class I. Specifically, I am concerned about the dampening effect the existing definition has on the demand for dairy ingredients in what I will term non-traditional beverages and smoothie type products. These products do not resemble milk and are not marketed directly against milk, but represent significant markets for dairy ingredients.

Increasingly, products are being engineered from ingredients that did not even exist ten years ago. In the case of dairy, whey products have benefited from the technological advances with the development of more highly specialized fractions that can be effectively marketed into a broader set of food applications than ever before. Whey protein manufacturers have made substantial progress in addressing the heat stability concerns that had historically been a limiting factor in whey protein applications. Cornell and other universities have also made progress fractionating milk prior to manufacturing products. They have shown, for example, that it is possible to extract the milk serum proteins prior to cheese making. The milk serum proteins are what we think of as whey proteins once the milk has undergone the cheese making process.

Concurrent with the advances in technology in dairy, advanced fractionation technology has been applied across a broad spectrum of ingredients resulting in an almost exponential growth in ingredient options. In many cases, the fractionation has contributed to the reduction or elimination of unfavorable attributes of specific ingredients, resulting in many new ingredients that compete more effectively across a broader spectrum of applications.

Determining the classification of dairy products by specific component levels has become increasingly difficult in light of these advances in fractionating technology. It is also much riskier. I believe that the current definition has a chilling effect on dairy ingredient demand that extends far beyond what is known by the Department or the industry. Based upon discussions that I had with beverage marketers as part of my consulting business prior to joining Leprino, I believe that product formulators are constraining their use of dairy ingredients in products that would otherwise be classified as Class I in order to avoid both the regulatory burden and the increased costs associated with the production and marketing of Class I products. While this concerned me ten years ago, it is of much greater concern today because of the significantly larger market opportunity that is being constrained. Additionally, proposals before the Department to replace the SNF standard with a protein standard are likely to establish even further constraints, particularly as it relates to smoothies, products containing yogurt, and the nontraditional beverage category.

The difficulties with the current definition are evidenced by recent challenges to its application. The 15(a) administrative appeal proceeding regarding the classification of low carb milk-like products and the changes in procedures implemented by the Department in recent years to include whey ingredients in the calculation of the SNF content of beverages for the purposes of determining whether a beverage is a Class I or Class II product reflects the challenge. Additionally, I have been told by Department staff that the current application of the Class I definition criteria to nontraditional beverages is inconsistent.

My understanding is that these non-traditional beverages are generally not currently priced as Class I, either because the inclusion of dairy ingredients has been constrained to fall below the 6.5% SNF limit or because the Department has considered

their volumes to be diminimus and has not pursued their regulation as Class I products. However, I am concerned that adoption of a protein standard in the absence of a clarification in the definition that would ensure an exception for these products could result in the regulation of some of these beverages as Class I. While our corporate concern is centered on the impact on the market demand for dairy ingredients including whey proteins, I also would contend that producers net a lower overall price under the current definition or the NMPF proposal than would be achieved if the Class I definition was narrowed.

Changing the Compositional Standard from SNF to Protein.

Our opposition to the replacement of the SNF standard with a protein standard is rooted in our concern that the modification as NMPF proposes (proposal 7) will only exacerbate the problem discussed above as it relates to demand for whey proteins unless additional exclusions are also adopted. The NMPF proposal has been characterized as an updating in the accounting under the Orders to reflect advances in fractionation technology. Although the proponents of this proposal have stated that they do not intend that products currently priced as Class II be moved up to Class I, that is not the likely practical effect. The methodology used by NMPF to develop the new protein criteria translates the existing SNF criteria to a protein criteria based upon the protein to SNF ratio in raw milk. To the extent that products close to the 6.5% SNF threshold contain a higher or lower protein to SNF ratio than does raw milk, those products may be shifted between Class I and II under the NMPF proposal. It is logical to assume that protein beverages have a higher protein to SNF ratio than does raw milk. Consequently, protein drinks using dairy ingredients will likely be moved from Class II to Class I under the NMPF proposal. Additionally, many smoothie products are currently formulated at less than 6.5% SNF to maintain a Class II classification but contain significant quantities of whey protein. Therefore, I would expect many of these products to be moved from Class II to Class I under the proposal. A more thorough understanding of the products that would be impacted under the proposal is necessary to understand the demand implications for dairy ingredients in those products.

The products that I am most concerned about include beverages that would not be confused with milk. These beverages are being marketed as sport or protein drinks or smoothies. The manufacturers of these typically highly flavored products can choose between dairy and non-dairy ingredients without substantially impacting the identity of the product. While my primary concern is rooted in negative impacts on whey and whey product demand, a similar case could be made for other dairy ingredients. However, my testimony will focus specifically on the potential impact on whey and whey products.

Competitive Factors: Whey and Whey Products

Product developers consider many factors when selecting ingredients to be incorporated in product formulations. These factors include the functionality, the contribution of each ingredient to the end product characteristics, and cost, among other things. In many cases, several alternative ingredients can be used to provide the desired nutritional or functional profile.

Whey and whey products compete with several non-dairy ingredients in product formulas. Under the proposals that would adopt a protein compositional standard, the competitive position of high protein whey fractions, such as whey protein concentrates and isolates, would be most highly impacted. Proteins are generally added to foods or beverages for their contribution to the nutritional profile of the finished product or to enhance the structure and mouth feel. The most commonly referenced competitive ingredients tend to be soy-based, whether they are soy protein concentrates or soy protein isolates. These are the most likely substitutes for whey proteins in applications where they are being used for their protein contribution. However, many other ingredients, such as wheat protein isolates and vital wheat gluten / isolates, can also be substituted to achieve the desired protein contribution. Several different ingredients can be substituted for whey proteins that are being used to provide structure and mouth feel. An expanding family of hydrocolloids can substitute for whey protein to achieve desired structure and mouth feel. These products can be used individually or in combination with starches and gums. Product developers are very skillful in combining these proteins in developing products.

The competitive issues facing the whey complex are becoming more acute over time as improvements are made in alternative ingredients. Soy historically has been criticized for its "beanie" flavor and its use in beverages has been limited to highly flavored products that were capable of masking the flavor. However, with the more recent development of low flavor soybeans and improved refining techniques, flavor is becoming less of a constraint on soy use. Most every marketer of soy proteins now markets low flavor protein with reduced "beanie" flavor. Archer Daniels Midland, Dupont, Solae, and Central Soya are just a few of these companies. Several protein drinks already contain substantial volumes of soy protein. St. Louis-based Solae and Yoplait in France have recently announced the introduction of soy in a new yogurt being marketed in France with health claims touting both the dairy and soy benefits.

Beyond the functional considerations in selecting ingredients, an important additional factor in selecting ingredients to be used in a particular formulation is the cost. Cost considerations include the direct procurement costs and any costs associated with regulation. The regulatory costs include payment obligations into the pool and the costs incurred to satisfy reporting and other requirements of the Order. The impact of this regulatory burden should not be underestimated. Companies that have not historically been subject to Federal Order regulation find the reporting / audit requirements to be extraordinarily burdensome and the Federal Order System complicated and difficult to understand. From discussions during my consulting years that I had with marketers of products that had the potential of being Class I products, I found that nondairy companies tend to have a visceral reaction regarding the potential burdens. These discussions often concluded with a point that classification as a Class I product would result in the product losing viability. In such situations, the product formulators were sent back to the lab to reformulate the product using other ingredients to ensure that the product did not fall within the definition of a Class I product.

The Department must be cautious not to establish a regulatory disadvantage for dairy ingredients that will result in reduced market demand. Given the wide array of *alternative ingredients*, an increase in cost or regulatory burden would do just that and more than offset any incremental gains realized by producers as a result of Class I classification for such products.

Sample of Beverages that May Be Impacted

To provide some insight regarding the impact of the proposals on existing products, I purchased a limited number of products from two stores in Denver. Two smoothie-type products (Odwalla and Naked) were purchased from a health food store. These products were located in refrigerators placed as end caps on aisles away from the dairy section. The other six products were purchased from a nutritional supplement store that, notably, did not sell milk. Although they were refrigerated at the point of sale to allow for immediate consumption, these products are all shelf stable at room temperature. The products selected are all marketed as sport or high protein beverages. Some include dairy ingredients and some do not.

Leprino targets applications using vegetable proteins (soy and wheat), caseins, and milk protein concentrate as potential markets for whey proteins. With recent advances in technology, whey protein could be formulated into all of these products. Therefore, it is relevant to review the classification of these products presuming that a protein composition criteria, such as that proposed by National Milk Producers Federation (NMPF), is adopted.

Since insufficient data is available on the nutrition panel to segregate the portion of the protein that is from dairy-derived ingredients and because we view the entire protein composition to be a dairy protein opportunity, it is instructive to review the potential protein usage within each product. Based upon the nutritional panel data, I estimated the protein percent in each of these products. I assumed 28.35 grams of protein per ounce and divided the ounces of protein by the fluid ounces of finished product. I did not have the specific gravities of the products so could not be more precise, but I believe the methodology is materially accurate.

The following table summarizes the estimated protein and current sources of protein for the eight products:

Product	Estimated Protein	Current Primary Protein Sources
Accelerade® (Fruit Punch)	1.8%	Whey protein isolate
Odwalla Super Protein® (Chocolate)	4.4%	Soy milk, soy protein isolate
Naked (Verry Pro-Berry™)	6.2%	Whey protein concentrate, soy protein isolate
Atkins Advantage™ Shake (Chocolate Royale)	6.4%	Calcium caseinate, whey protein concentrate
Isopure (Blue Raspberry)	7.1%	Ion exchange whey protein isolate

Product	Estimated Protein	Current Primary Protein Sources
GNC Pro Performance® Protein 95™ (Vanilla)	8.0%	Soy protein isolate
EAS™ Myoplex®	8.7%	Milk protein concentrate, calcium caseinate, whey protein isolate
Met-Rx RTD 40™ (Chocolate)	9.4%	Milk protein concentrate, milk protein isolate, calcium sodium caseinate, hydrolyzed wheat protein (gluten)

Based upon the protein compositional criteria alone (putting aside for the moment the Class I exception for products in meal replacements in hermetically sealed containers), all products on the above list with the exception of Accelerade would be classified as Class I if they used only dairy-derived proteins under the National Milk proposal. Yet, none of these products could be confused with standard of identity milk by consumers. Consumers of these products are purchasing the products for their performance benefits, such as fuel for an endurance event, as a recovery drink, or for muscle building or other health benefits. Therefore, it is unlikely that these products are displacing milk sales.

Manufacturers of these products would have several options in response to a Class I classification. Of course, one alternative would be to formulate with dairy proteins regardless of regulatory impact. Although we believe that dairy protein is superior to non-dairy protein, my experience has been that product developers would more likely formulate around the regulation to ensure the product was not classified as Class I than be subjected to the regulations.

A second alternative under NMPF's proposal would be to source all of their protein as whey protein and avoid an obligation to the pool. It is unclear to me, however, whether the reporting requirements would still apply since the product would still be a Class I product. Certainly, the burden of reporting production or distribution of the product would likely be sufficient to discourage using whey proteins as the sole protein source even if the manufacturer had no pool obligation. If there were no reporting requirement, whey protein would be on par with non-dairy proteins but would have a regulated advantage over other dairy ingredients.

A third (and I believe most likely) alternative would be to use dairy-derived proteins up to slightly less than 2.25% threshold and use non-dairy protein sources for the balance of the protein needs. The foregone opportunity for dairy protein would range from 49% of the protein in the Odwalla® Super Protein® to up to 76% of the protein demand for the Met-Rx RTD 40™.

It is this third scenario that harms the industry. Ultimately, no one wins in this third scenario other than producers of non-dairy ingredients that displace dairy's market share. To the extent that the demand for whey proteins is constrained by new product developers limiting use in order to avoid a Class I classification, the overall returns from the whey and lactose complex are lower than they otherwise would be. These lower returns would result in a shift in production from whey fractions to sweet whey. The

sweet whey market is a delicate market and is subject to substantial price swings when supply and demand is imbalanced. For example, the NASS whey price dropped \$0.1472 (over 50%, from \$0.2868 to \$0.1396) during the 18-month period from January 2002 to June 2003 under pressure from demand displacement from the animal feed sector. As demand recovered, prices recovered to just shy of \$0.30 within a year thereafter. Each penny change in whey prices moves the Class III price by 5.86 cents. Therefore, a 15-cent price swing on sweet whey moves the Class III price by 88 cents per cwt.

Assuming the 30.92% Class III utilization in the Orders in 2004, a penny reduction in whey price translates into a 1.8-cent reduction in the uniform price. However, to the extent that Class III prices move Class I prices, the negative impact on producer milk prices is amplified. At the 43.41% Class I utilization, the penny reduction in whey prices equates to a 2.6-cent reduction in the uniform price. So a penny reduction in whey prices reduces uniform prices by 4.4 cents per hundredweight in total.

Net Producer Impacts

My estimate of the direct impact on the uniform price of narrowing the Class I definition (ignoring the impact on the Class prices due to changes in whey prices noted above) is that in 2004, the uniform price would have decreased by 0.5 cents per cwt. This estimate was calculated by multiplying the 43.61% 2004 Class I utilization published in the Federal Order Statistics by the 0.30% of Class I utilization attributed to yogurt-based beverages in the department exhibit (Exhibit 12). Based on this calculation, 0.13% of total pool milk is impacted by moving yogurt-based beverages from Class I to Class II. The price difference between Class I and II for 2004 is approximated to be \$3.70 per cwt. Therefore, the impact of moving yogurt-based beverages from Class I to Class II is a reduction of 0.47 cents per hundredweight on the blend price. While this small number might be surprising, it is not illogical. As I have already noted, I believe that manufacturers of non-traditional beverages have largely formulated around the Class I threshold, as have many smoothie manufacturers.

I have not attempted to estimate the impact of the constraints on whey protein demand under the current or proposed Class I definition. Similarly, I have not estimated the impact on nonfat dry milk or other dairy ingredients that are also impacted by the same constraints on Class IV prices (and therefore Class II prices). This is because data is not available quantifying the foregone demand under the regulations. However, I fully expect that the increased opportunities for whey proteins and other dairy ingredients that will be unleashed by the removal of these nontraditional beverages and smoothies from the threat of Class I classification will offset the reduction in Class I revenue by many fold.

Position recap

The Class I fluid milk product definition has significant impacts on dairy ingredient demand. Many references have been made at this hearing to the formulation of products in a fashion that results in them dropping into Class II. This reformulation is accomplished by displacing dairy ingredients with non-dairy ingredients. Therefore, not

only is the pool missing out on Class I revenue that was intended to be captured under the current definition, but the diminished dairy ingredient demand due to this reduction in dairy ingredient use results in lower whey and dry milk prices that translate into lower prices across all Classes.

I do agree that products competing directly with drinking milk need to be put on a comparable regulatory footing with drinking milk. Therefore, products that can be confused with milk and are directly marketed against milk should be classified as Class I. However, I do not believe the nontraditional beverages and smoothies fall into this category.

Therefore, Leprino believes that it is time to refocus the Class I fluid milk product definition on beverage milk and those products that directly compete with beverage milk. Alternatively, if the current Class I definition structure is maintained, Leprino supports the exclusion for nutritional drinks (Proposal # 10) and supports the exclusion of products containing 20% or more yogurt (Proposal # 9). If the Department does not grant the exclusions for nutritional drinks and beverages containing 20% or more yogurt, Leprino strongly opposes the adoption of the protein standard to replace the SNF standard.